APPLICATION GUIDELINES

Stella Maris™ Aquatic Plant Extract (*Ascophyllum nodosum*)

The Acadian people of Eastern Canada have been harnessing the power of the sea to grow healthier crops for centuries. Over the last 30 years, Acadian Seaplants has been scientifically perfecting that tradition and delivering highly effective products to growers around the world. **Stella Maris** continues this proud tradition of excellence. Formerly known as Acadian, **Stella Maris** provides the same great natural benefits of seaweed harvested from the nutrient laden waters of the North Atlantic. **Stella Maris**, Latin for Star of the Sea, unleashes the growing potential of your crop.

Compatibility: **Stella Maris** is compatible with most insecticides, fungicides and fertilizers. Some pH adjustments may be required with acidic mixtures. Add surfactants after the product has completely dissolved in the tank solution. When mixing with calcium products, thoroughly mix **Stella Maris** with the water in the tank prior to adding the calcium product. If interaction of chemicals is unknown, a "jar" compatibility test is recommended.

Storage and Handling: This product contains a preservative but should be stored away from intense sunlight and heat. Avoid spillage as product is very slippery and may create a hazard.

Directions for Use: **Stella Maris** fully dissolves in water and is suitable for use in liquid foliar, soil applied, and irrigation water applications. **Crop recommendations are provided on the following pages.**

Foliar Applications: Fill half the spray tank with water, begin agitating and gradually add recommended amount of **Stella Maris** with remainder of water and spray solution. Use enough water for good spray coverage. The foliar spray should be applied as a fine mist, with low fluid velocity until the foliage is wet. Do not foliar-apply during times of moisture or heat stress. For best results apply during the cool part of the day or when temperatures are below 85 degrees Fahrenheit. Do not spray just before or after rainfall or sprinkler irrigation. Use a surfactant for maximum dispersal and leaf adherence.

Soil applications: Soil applied treatments can be made by mixing with soil-applied fertility, directed sprays to the soil, sidedress treatments, applications through the irrigation systems or other methods which effectively apply **Stella Maris** to the soil. When making irrigation treatments dilute 1 part **Stella Maris** with at least 5 parts water before adding to the supply tank. Continuous agitation of the supply tank is recommended. **Stella Maris** can be applied through drip, microject, sprinkle, overhead, furrow, flood and other types of irrigation at the suggested rates. For micro sprinkler, solid set or drip irrigation, apply after the system is fully pressurized, inject finished solution for at least one hour and follow with clean water for at least two hours. Avoid heavy irrigations immediately following application.

Rooting/Transplant Solution: To encourage root growth of new transplants, treat roots with a solution of **Stella Maris** at the rate of 10 to 25 fluid ounces per 20 gallons of water (40 to 100 ml per 10 litres) prior to transplanting.

Late Season and Post-Harvest Applications: **Stella Maris** is an excellent way to stimulate root growth and prepare perennial crops for next season's early growth. Apply to the soil or foliar using above methods.

ADDITIONAL APPLICATIONS SHOULD BE MADE IMMEDIATELY PRIOR OR FOLLOWING STRESS PERIODS SUCH AS CHILL OR DROUGHT.

Acadian Seaplants
Tel: +1 902 468 2840 Fax: +1 902 468 3474
email: info@acadian.ca www.acadianseaplants.com
30 Brown Avenue, Dartmouth, Nova Scotia, Canada B3B 1X8

GENERAL APPLICATION RATES

CROPS	Dosage per application	General recommendations
Berries, Vegetable Crops, Corn, Soybeans, Cotton, Peanuts, Potatoes and Herbs	1 to 2 litres per acre	Apply **Stella Maris** starting at planting with repeat treatments every 7-30 days. Applications can be made either foliar or to the soil. Apply 3-5 days prior to an anticipated plant stress.
Woody Perennial Crops (Trees, Vines, Bushes, etc.)	1 to 4 litres per acre	Apply **Stella Maris** starting at regrowth in the spring. Repeat treatments every 7-30 days. At transplanting, a root treatment can be used (see page 1). Post harvest applications can be made every 1-4 weeks from harvest to dormancy. Applications can be made either foliar or to the soil. Apply 3-5 days prior to an anticipated plant stress.

SPECIFIC APPLICATION RATES

FRUIT CROPS	Dosage per application	Best use recommendations
Bushberries *(Blueberry, Currant, Elderberry, Gooseberry, Huckleberry, etc.)*	1 to 2 litres per acre	**1st application:** 4 weeks pre-bloom (soil) **2nd application:** 2 weeks pre-bloom **3rd application:** petal fall **Repeat:** every 2-4 weeks during summer months **Post harvest application:** 2-4 weeks after harvest
Caneberries *(Blackberry, Caneberry , Loganberry, Raspberry, etc.)*	1 to 2 litres per acre	**1st application:** at start of growth in the spring **2nd application:** 2 weeks pre-bloom **3rd application:** petal fall **Repeat:** every 2-4 weeks during summer months **Post harvest application:** 2-4 weeks after harvest
Cranberries	1 to 2 litres per acre	**1st application:** 4 weeks pre-bloom (soil) **2nd application:** 2 weeks pre-bloom **3rd application:** petal fall **Repeat:** every 2-4 weeks **Post harvest application:** 2-4 weeks after harvest
Grapes - Wine	1 to 4 litres per acre	**1st application:** 1-4 inch shoot growth (foliar AND soil) **2nd application:** 10-12 inch shoot growth (foliar AND soil) **3rd application:** 5 days pre-bloom (foliar) Avoid foliar pre-bloom application in varieties that are prone to under shatter. Use high rate in pre-bloom sprays on varieties that tend to over shatter. **4th application:** 'BB' sized berries (2-3 mm) (foliar) **5th application:** veraison (foliar AND soil) **Repeat:** every 2-4 weeks during summer months **Post harvest application:** 2-4 weeks after harvest
Pome Fruits *(Apples, Pears and Quince)*	1 to 4 litres per acre	**1st application:** pre-pink **2nd application:** pink bud **3rd application:** 7-10 days post petal fall **4th application:** 1/2-3/4" fruit **Repeat:** every 2-4 weeks during summer months **Post harvest application:** 2-4 weeks after harvest

FRUIT CROPS (cont.)	Dosage per application	Best use recommendations
Stone Fruits *(Peaches, Nectarines, Apricots, Plums, and Prunes, etc.)*	1 to 4 litres per acre	**1st application:** pink or white bud **2nd application:** petal fall **3rd application:** jacket split **Repeat:** every 2-4 weeks during summer months **Post harvest application:** 2-4 weeks after harvest
Cherries	1 to 4 litres per acre	**1st application:** pink or white bud **2nd application:** petal fall to shuck fall **3rd application:** exposed young fruit **4th application:** straw colour Apply with gibberellin sprays. Avoid sprays after straw-colored fruit on non-gibberellin blocks where early market is desired. **Repeat** during times of stress **Post harvest application:** 2-4 weeks after harvest
Strawberries	2 litres per acre	**Pre-plant:** transplant treatment (see page 1) **Repeat:** soil applications every 14 days until harvest is complete

VEGETABLE CROPS	Dosage per application	Best use recommendations
Asparagus	1.5 to 2 litres per acre	**Pre-plant:** transplant treatment (see page 1) **1st application:** for newly established plants, make a soil or foliar application at emergence **Repeat:** soil or foliar applications every 14-21 days until harvest is complete
Brassica Vegetables *(Broccoli, Brussels Sprouts, Cauliflower, Collards, Cabbage Kale, and Mustard Greens)*	1.5 to 2 litres per acre	**1st application:** soil or transplant treatment at planting **Repeat:** soil or foliar applications every 14-21 days until harvest is complete
Bulb Vegetables *(Garlic, Leeks, Onions, and Shallots)*	1.5 to 2 litres per acre	**1st application:** soil applied treatment at planting **Repeat:** soil or foliar applications every 14-21 days until harvest is complete
Corn *(fresh, sweet, and pop)*	1 to 2 litres per acre	**1st application:** soil treatment at planting **2nd application:** soil or foliar at the 12-24 inch stage
Cucurbit Vegetables *(Cantaloupe, Cucumbers, Gourds, Honeydew, Muskmelons, Squash, Pumpkins, and Watermelons)*	1.5 to 2 litres per acre	**1st application:** soil or transplant treatment at planting **Repeat** soil or foliar applications every 14-21 days until harvest is complete
Fruiting Vegetables *(Eggplant, Fresh Tomatoes, Processing Tomatoes, and Peppers)*	1.5 to 2 litres per acre	**1st application:** soil or transplant treatment at planting **Repeat:** soil or foliar applications every 14-21 days until harvest is complete. Use adequate water for very good coverage. Minimum 40 GPA for mature plants is recommended.
Leafy Vegetables *(Celery, Endive, Lettuce, Radicchio, Rhubarb, Spinach, and Swiss Chard)*	1.5 to 2 litres per acre	**1st application:** foliar application at the 2-4 leaf stage **Repeat:** foliar applications every 14-21 days until harvest is complete

VEGETABLE CROPS (cont.)	Dosage per application	Best use recommendations
Legume Vegetables fresh, dry and processing *(Beans, Garbanzos, Lentils, Peas, and Soybeans)*	1.5 to 2 litres per acre	**1st application:** soil applied treatment at planting **Repeat:** soil or foliar applications every 14-21 days until harvest
Potatoes	1.5 to 2 litres per acre	**1st application:** soil applied treatment at planting **Repeat:** soil or foliar applications every 21-30 days until harvest
Root and Tuber Vegetables *(Beets, Carrots, Ginger, Radishes, Sweet Potatoes)*	1.5 to 2 litres per acre	**1st application:** soil applied treatment at planting **Repeat:** soil or foliar applications every 14-21 days until harvest

FIELD CROPS	Dosage per application	Best use recommendations
Alfalfa	1 to 2 litres per acre	**1st application:** soil or foliar application at planting or early season growth **Repeat:** soil or foliar applications after each cutting or every 3-4 weeks
Corn *(grain, feed, forage and silage)*	1 to 2 litres per acre	**1st application:** soil treatment at planting **2nd application:** soil or foliar application at the 12-24 inch stage
Cotton	1 to 2 litres per acre	**1st application:** soil applied treatment at planting **Repeat:** soil or foliar applications every 7-21 days
Hops	1 to 2 litres per acre	**1st application:** at start of training in the spring **Repeat:** every 2-4 weeks
Rice	1 to 2 litres per acre	**1st application:** 30-40 days after seeding **2nd application:** at early panicle emergence
Soybean	1 to 2 litres per acre	**1st application:** soil applied treatment at planting **Repeat:** soil or foliar treatments 30-40 days after seeding or with the final glyphosate treatment
Wheat	1 to 2 litres per acre	**1st application:** soil applied treatment at planting **Repeat:** soil or foliar treatments at the 6 and 12-18 inch growth stage

OTHER	Dosage per application	Best use recommendations
Herbs and Spices	1 to 2 litres per acre	**1st application:** soil or transplant treatment at planting **Repeat:** applications every 14-21 days until harvest is complete
Vegetable Seed Crops all varieties	1 to 2 litres per acre	**1st application:** at planting (soil) **Repeat:** every 14-21 days Apply as foliar spray pre-bloom and 7-10 days before beginning "dry down" prior to harvest.
Hydroponic Crops	0.4 to 0.8 fluid ounces per 100 gallons of water 3.5 to 7 millilitres per 100 litres of water	Add recommended solution to the fertigation system. Maintain desired ratio when new water is added. Continue to monitor other fertilizer salts in hydroponics solution to ensure total hydroponic solution salinity (Electrical Conductivity, EC) is suitable for each species.